# Evaluating the Impact of the North Carolina Art Therapy Institute's Newcomers Program

by

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David Toole

Thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Science in the
Duke Global Health Institute in the Graduate School
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2019

ABSTRACT

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# Abstract

Refugees and asylum seeking children (Newcomers) enter the United States with little psychosocial support (Asgary & Segar, 2011; Burbage & Walker, 2018; Salami, Salma, & Hegadoren, 2019), despite having consistently higher rates of mental health problems (Bronstein & Montgomery, 2011; Jutta Lindert, Ehrenstein, Priebe, Mielck, & Brähler, 2009; Montgomery, 2011; Porter & Haslam, 2005; Turrini et al., 2017). Art therapy has shown mixed effects as effective treatment for migrant populations in resettlement countries (DeMott, Jakobsen, Wentzel-Larsen, & Heir, 2017; LeBaron, 2011; Murray, Davidson, & Schweitzer, 2010; Turrini et al., 2017). This study adds to the growing literature that examines the impact of art therapy interventions for refugee and asylum seeking populations in resettlement countries and countries of asylum. This study had three objectives. First, I wanted to evaluate the overall impact of the North Carolina Art Therapy Institute's (ATI) Newcomer's program. ATI is an expressive arts therapy institute, and the Newcomer's program was designed for all Newcomers. Second, I wanted to compare two forms of implementation, an intense weeklong "summer camp" program vs. a semester-long school-based program. Lastly, this study wanted to evaluate the impact of expressive arts therapy for reducing mental health problems in refugee youth. This study used a quasi-experimental intervention and mixed methods evaluation to assess the impact of ATI's Newcomers Program in Durham, NC with Newcomers aged 4-14. The study was conducted in Fall 2018 in Durham, NC and compared the impact

of program types, a summer camp program (Number of youth = 31) and a school-based program (Number of youth =53). The number of hours of therapy remained consistent between programs (hours = 10.5) to allow us to compare. Quantitative data was collected before and after the intervention, where parents (N=15) and teachers (N=17) reported on youth's behaviors. Qualitative data was collected after each program with parents of refugee youth (N=2) and therapists (N=5). We found that both versions of the Newcomers Program were associat4ed with a small but insignificant impact on hyperactivity and inattention. The school based program has a statistically significant impact on prosocial behavior. Despite this overall modest impact, interviews with therapists and parents anecdotally revealed additive impact. These interviews also revealed various implementation challenges that might contribute to the limited impact observed. This study highlights the need for further examination on the effects of art therapy interventions with Newcomer populations.

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# Dedication

For my family & friends, who support me always.

For my mentors, who push me always.

& most importantly: for my refugee kids, who teach me always.

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# Acknowledgements

This study would not be possible without the support and collaboration between The Kenan Institute for Ethics, The North Carolina Art Therapy Institute, and Durham Public Schools.

# 1. Introduction

## 1.1 Refugee Background

According to the United Nations High-Commissioner on Refugees (UNHCR) there are with 68.5 million people currently globally displaced and this number is only growing. according to the United Nations High-Commissioner on Refugees (UNHCR)(United Nations High Commissioner for Refugees, 2018). 25.4 million of this total are refugees, 40 million internally displaced persons, and 3.1 million asylum-seekers (United Nations High Commissioner for Refugees, 2018). Refugees and asylum seekers come from all over the world and live all over the world (United Nations High Commissioner for Refugees, 2018).

The term "Refugee" is a legal category that most recently is codified through the 1948 UN Convention and 1951 Geneva Convention (USA for UNHCR, 2018). Signatories to these conventions are legally obligated to refugees and asylum-seekers crossing their borders. UNHCR defines a refugee as

> "someone who has been forced to flee his or her country because of persecution, war or violence (USA for UNHCR, 2018). A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership in a particular social group (USA for UNHCR, 2018). Refugees and those claiming asylum cannot return home or are afraid to do so. War and ethnic, tribal and religious violence are leading causes of refugees fleeing their countries" (USA for UNHCR, 2018).

To become a refugee, a person must be given refugee status through a country's "refugee status determination" process. This process can be (and is usually) passed on to UNHCR, and the process determines if a person can transition their

legal status from ‘asylum seeker,’ to refugee (United Nations High Commissioner for Refugees, 2018).

The majority of the 24.4 million refugees and asylum seekers are living in protracted situations, with the average length of displacement being 26 years -- another record high in modern history (Population Division, Department of Economic and Social Affairs, United Nations Secretariat, & UN, 2017). Over 50% of the refugee and asylum seeking population are under the age of 18 (United Nations High Commissioner for Refugees, 2018). Most refugee and asylum seeking children have been exposed to multiple traumatic events prior to fleeing their home country (Turrini et al., 2017). While upon arrival into counties of asylum and resettlement countries, few refugees and asylum seekers find lasting economic, social, and emotional support (Birman et al., 2008; Turrini et al., 2017).

There are three durable solutions to refugee crises: voluntary repatriation, local integration, and resettlement. Voluntary repatriation is when refugees “voluntarily” choose to return to their country of origin. Local integration is when refugee populations are absorbed into the local population in their countries of asylum. Lastly, third country resettlement is when refugees are given the opportunity to be resettled to a third country. However, these durable solutions are not always possible. When refugees voluntarily repatriate their safety cannot always be assured, while most refugee populations are unable to be locally integrated due to restrictive laws and policies in countries of first asylum. Lastly,

only 1% of the global refugee population is ever resettled to third countries, with 51% of the resettled population being children (UNHCR, 2018; United Nations High Commissioner for Refugees, 2018).

## 1.2 U.S.A. Resettlement

Resettlement is possible for 1% of the world's refugees (UNHCR Factsheet). The United States was historically one of the largest resettlement countries in the world (UNHCR, 2018). Unfortunately, the U.S. has dramatically reduced the number of resettlement opportunities for refugees in the past few years, going from 53,716 refugees in the 2016-2017 fiscal year (UNHCR, 2018), to 22,491 people in the 2017-2018 fiscal year (Nayla Rush, 2018). Some resettlement countries only resettle very specific, and highly vulnerable, populations within the larger refugee population. For example, according to UNHCR's reviews of country's resettlement policies, the United States's resettlement priorities included those who had serious medical conditions, women and girls at risk, children at risk, and survivors of torture and violence (UNHCR, 2018).

For those who have been resettled, life in a resettlement country is not easy. The United States resettlement program, Department of State's Reception and Placement program, outsources the resettlement process to resettlement agencies across the country. The State Department gives resettlement agencies money for refugees, and the agencies provide refugees with 3 months of support that includes assistance in securing short-term housing, furniture, and basic

needs (UNHCR, 2018; US Department of State, 2019). States work with resettlement agencies through their Departments of Health and Human Services to provide support after these 3 months end (US Department of State, 2019).

North Carolina runs their short-term transitional refugee services through the Department of Health and Human Services. The North Carolina Refugee Assistance Program is made of two programs, the Refugee Cash Assistance (RCA) and Refugee Medical Assistance (RMA) program, and other refugee support services (NC Department of Health and Human Services, 2018). The RCA "is short-term financial support provided to eligible individuals who participate in employment services in accordance with an Employability Plan [and the RMA] is a short-term medical assistance program available to eligible individuals in order to stabilize their health shortly after arrival in the US" (NC Department of Health and Human Services, 2018).

## 1.3 Refugee and Asylum Seeking Youth & Mental Health

Refugee and asylum seeking youth have higher rates of childhood mental disorders when compared to other populations, including PTSD, intermittent anger, anxiety, and depression (Bronstein & Montgomery, 2011; Hodes, Anagnostopoulos, & Skokauskas, 2018; Jutta Lindert et al., 2009; Montgomery, 2011; Porter & Haslam, 2005). As these youth grow up without support systems in the U.S., many get lost in the cracks of new systems like the education system (Bal, 2014; Block, Cross, Riggs, & Gibbs, 2014; Dooley & Thangaperumal, 2011; Tandon, 2016). According to the US Department of Education, students with

limited English proficiency have graduation rates of 61%, compared to the nationwide 81% (Sugarman, 2015). These young people are likely to come into adulthood in the U.S. and many of the youth become the cultural, social, language, and institutional broker for their families in addition to the normal stresses of adolescence and migration can lead to higher rates of mental health illnesses (Block et al., 2014; Dooley & Thangaperumal, 2011; Montgomery, 2011; Porter & Haslam, 2005; Tandon, 2016; Turrini et al., 2017; U.S. Department of Education, 2017).

The gold standard of mental health treatment for many common mental health disorders in the U.S. is Cognitive Behavioral Therapy (CBT) (David, Cristea, & Hofmann, 2018; Lancaster, Teeters, Gros, & Back, 2016). CBT is a main treatment for many common mental health disorders, and can last from 5 to 20 individual sessions for non-comorbid disorders (Fenn & Byrne, 2013), but sessions can costs from $100 to $300 per session, costing up to $6,000 for full treatment for a single mental health disorder (Anxiety and Depression Association of America, n.d.; Cognitive Behavior Therapy Center, n.d.). In addition to cost, refugees and asylum seeking youth experience other barriers to accessing mental health services such as mistrust of the system, inadequate interpretation, limited services, and stigma (Asgary & Segar, 2011; Burbage & Walker, 2018; Refugee Health Technical Assitance Center, n.d.; Salami et al., 2019).

Given these barriers and the higher rates of mental health disorders in refugee and asylum seeking populations, there is a great need for the development and assessment of shorter, more cost-effective programs that can improve mental health on a larger scale than individual therapy.

## 1.4 Expressive Arts Therapy

There are many theories of art therapy (Hogan, 2015; LeBaron, 2011), including psychodynamic, humanistic, cognitive-behavioral, solution-focused, narrative, developmental, and expressive or multimodal (Cavazos, n.d.; Hogan, 2015; LeBaron, 2011). This study worked with the North Carolina Art Therapy Institute, an organization that practices expressive arts therapy.

Expressive arts therapy emerged through the 1970s "expressive therapy" movement, originating at Lesley University. In this time, expressive therapy was differentiated from the creative arts therapy as an intermodal style (Cavazos, n.d.; Hogan, 2015; Malchiodi, 2003). This style highlights the connections between different modalities of art (e.g. painting, dancing, sculpting) and sensory experience (e.g. touch, hear, see). As described by Dr. Stephen Levine, expressive arts therapy's "basic framework of the field had an artistic rather than psychological base" (LeBaron, 2011). According to Levine, "expressive therapy" became "expressive arts therapy" in the 1990's, which rooted the discipline in the arts and extended the work outside of rigid sphere of psychotherapy (LeBaron, 2011). Levine posits that expressive arts therapy developed in direct contrast to the professionalization and bureaucratization of psychotherapy (LeBaron, 2011).

As psychotherapy narrows its scope and methodology through professionalization, expressive arts therapy attempts to capture the dynamic energy between therapist and participant (LeBaron, 2011).

The definition of art therapy has developed throughout time (Cavazos, n.d.; Hogan, 2015; LeBaron, 2011; Malchiodi, 2003). In this study we use the broadest definition of expressive arts therapy, namely a method of therapy that uses various art modalities as a way of experiencing and expressing feelings (Malchiodi, 2003). This broad definition includes "expressive therapy [which] has been defined as using the arts and their products to foster awareness, encourage emotional growth, and enhance relationships with others through access to imagination; arts as therapy, arts psychotherapy, and the use of arts for traditional healing" (Malchiodi, 2003).

Central to expressive arts therapy is Winnicot's concept 1971 of imagination and play, which is seen as the connection between the internal and external world (DeMott et al., 2017; Winnicott, 1971). Where healthy people are constantly moving between the inner and outer world, those who experience trauma are often unable to move between the inner and outer world (DeMott et al., 2017). Expressive arts therapy provides the physical, social, and psychological space for children to play, allowing them to engage in the transitional space between the inner and outer world (DeMott et al., 2017; Malchiodi, 2003). Play allows children in particular to feel safe, and to explore their inner and outer worlds, and as DeMott describes, "play is relational and can imply trust. Play

relates to using imagination and creativity that ultimately can enhance their identity" (DeMott et al., 2017).

## 1.5 Art Therapy for Newcomer Youth

Given the increasing number of displaced children and the strong evidence poor mental health (Bal, 2014; Beiser, 2009; Bronstein & Montgomery, 2011; J. Lindert, von Ehrenstein, & Brähler, 2011; Jutta Lindert et al., 2009; Porter & Haslam, 2005; Tandon, 2016), amongst this population there is a critical need to develop, evaluate and disseminate therapeutically and cost-effective mental health programs.

There is encouraging, albeit mixed, evidence showing that art therapy is an effective mental health intervention for this population in high income countries, but there is a need to further evaluate art therapy interventions with this population (Murray et al., 2010). Existing literature has shown mixed results regarding the effectiveness of expressive arts therapy interventions as an intervention for severe mental health problems, and has pointed to the need for more rigorous evaluation of expressive arts therapy interventions with Newcomer populations in resettlement countries (Beauregard, 2014; Cortina & Fazel, 2015; DeMott et al., 2017; Murray et al., 2010; Turrini et al., 2017). A systematic review that examined existing mental health interventions implemented with refugee and asylum seeking populations post-resettlement found two studies that used an expressive arts therapy method (Murray et al., 2010). The review found that while these studies had moderate to strong effect sizes, the small sample sizes

and study designs did not allow for authors to draw conclusions regarding effectiveness and impact (Murray et al., 2010).

Another review examining the effects of class-based expressive arts therapy programs with a variety of vulnerable populations found mixed results regarding expressive arts therapy among immigrant, refugee, and asylum seeking populations (Beauregard, 2014). In addition, the review found that "treatment… could not influence in a positively significant manner symptoms of PTSD, anxiety and depression due to, according to the authors, the fact that the interventions were not targeted enough" (Beauregard, 2014).

A recent RCT examining the effects of a manualized expressive arts therapy program conducted in Norway with unaccompanied asylum seeking youth showed modest mental health differences between the control and experiment group (DeMott et al., 2017). However, this study found that there was a significant difference between groups concerning life satisfaction and hope for the future, with the experiment group having significantly higher self-reported scores than the control group (DeMott et al., 2017). However, this study was also conducted during the a stressful time period for participants, namely all participants were in the middle of their adjudication processes for refugee status (DeMott et al., 2017). This status determined if participants were legally able to stay in the country. A serious confounding factor in this study was that many participants were adjudicated their status during the study – those given refugee status would of course have higher life satisfaction and hope for the future

because the amount of uncertainty in their lives reduced drastically (DeMott et al., 2017). Similarly, those who did not receive refugee status were either deported or disappeared, leading to them dropping out of the study (DeMott et al., 2017).

Given these limitations, and the mixed evidence regarding the efficacy of expressive art therapy interventions, there is a need to further evaluate these methods of treatment. We need better, shorter, more effective ways to help young Newcomers overcome traumatic events, and strengthen their emotional and psychological resiliency. Refugee youth need skills to manage everyday stress and past-traumas. What we hope to find is an improvement of mental health outcomes in refugee youth who participate in the art therapy program. This study will build upon previous work evaluating the effectiveness and fidelity of a Newcomers Art Therapy Program that is run by the North Carolina Art Therapy Institute with resettled refugee youth. The rest of this paper will first explain the study's design and setting, an overview of the intervention implementation, the methods of the evaluation, analysis and results of the intervention, and finally a conclusion and discussion regarding the findings.

## 2. Study Design

This is a convergent mixed methods designed study. A convergent mixed methods study is when the qualitative and quantitative methods are collected and/or analyzed at the same time (Pluye & Hong, 2014). This method provides a more nuanced evaluation. The Newcomers Program is an expressive arts therapy program, that does not have a manual or curriculum. Evaluating the fidelity and approaches of each iteration of the Newcomers Program will be guided by the interviews conducted with therapists and the Director of the Institute.

This study attempted to evaluate the impact of this program **as is**. This study will first examine if there was impact in the summer camp program, and if not, why? Then it will examine if there was impact in the school-based program, and if not, why? Lastly, it will examine if there was a difference in impact comparing the summer camp (experiment) and the school-based program (control), and if so, why or why not. This study was designed to evaluate the impact of the Newcomers program overall, and to compare the impact of a short, intensive implementation of the Newcomers program to an already existing school-based program.

We have two arms of this study. The control arm is the school-based program, the program that has existed throughout The Triangle (Durham, NC, Chapel Hill, NC, and Raleigh, NC region) for the past decade. The experiment arm is the summer camp program. The summer camp was planned to evaluate how ATI worked in the schools as is, but condensed into a weeklong intervention.

Overall impact of the Newcomers program is evaluated within each arm of the study, through analyzing pre-intervention and post-intervention scores on a behavioral questionnaire. What this means is that we will examine if either implementation had impact within the sample of each arm. Comparison of models will use the school-based program as a care-as-usual control, with the summer camp arm as the experiment.

# 3. Setting

## 3.1 Study Location

This study was set in Durham, North Carolina. North Carolina has a growing migrant population, making up 8% of the population, with an additional 6.7% being children of at least one immigrant parent (American Immigration Council, 2015). Historically North Carolina has been one of the largest refugee resettlement states, with 21,957 coming in 2016. Currently, North Carolina is the ninth largest refugee resettling state in the United States (UNHCR, 2018). Of course, these numbers have been drastically reduced with the change in the Presidential administration. Durham has welcomed many refugee, asylum seeking, and migrant populations, including people coming from Iraq, Bhutan, Afghanistan, Syria, Sudan, the Democratic Republic of the Congo (DRC), El Salvador, Mexico, Bhutan, Vietnam, Honduras, among others. Similar to larger United States trends, many refugee populations in Durham, NC are coming from the Democratic Republic of the Congo, Iraq, and Syria in the past few years (UNHCR, 2018).

## 3.2 Institutions Overview

This study was conducted in a tripartite partnership between the Kenan Refugee Project (KRP) in the Kenan Institute of Ethics at Duke University, ATI, and Durham Public Schools (DPS).

### 3.2.1 The Kenan Institute for Ethics (KIE)

The Kenan Institute for Ethics (KIE) is an institute at Duke University. KIE launched the Kenan Refugee Project KRP, a multi-sited longitudinal community-based research project study examining the contemporary dynamics of forced migration, in 2012. Beginning in Nepal with Bhutanese refugees, this project has expanded to work in Jordan, Egypt, and Durham, NC. This study is one facet of KRP. This study is also the master's thesis of a graduate student housed in the Duke Global Health Institute.

### 3.2.2 The Art Therapy Institute (ATI)

The Art Therapy Institute (ATI)'s mission is "The Art Therapy Institute (ATI) is an organization of mental health professionals dedicated to the healing power of the arts. We provide clinical art therapy services to diverse populations, empowering clients to develop their identities through the art-making process. We also offer training to allied professionals and seek to raise awareness in the general community about our profession and the benefits of arts-based therapy.
We affirm a commitment to inclusivity; we embrace all people and honor each individual's race; ethnicity; religious or spiritual beliefs; national origin; ancestry; age; abilities; sexual orientation; gender; gender identity; gender expression; socioeconomic, marital, immigration, or military status; political views; and new cultural identities as they emerge" (Art Therapy Institute of NC, n.d.). ATI identifies "art" as "healing," with a focus on empowerment.

### 3.2.3 Durham Public Schools (DPS)

Durham Public Schools (DPS) serves 33,072 students, with black and brown students (Black, Hispanic, Multiracial, Asian, American Indian, Hawaiian Pacific) making up 81.2% of this population (Durham Public Schools, 2017a). The schools that this program worked in were primarily black and brown children, making up on average 74.96% of the student body across the 5 middle and elementary schools (Durham Public Schools, 2017a). The total student population of the 2 middle schools are 908 and 533 students, with the 3 elementary schools having 640, 891, and 762 students (Durham Public Schools, 2017a). All elementary schools and 1 middle school are in the south and southwest part of Durham. One middle school is in the north of Durham. The middle schools have a 62.2% and 79.5% rate of free and reduced lunch, respectively (Durham Public Schools, 2017b). The elementary schools have a 69.1%, 40.6%, and a 61.1% rate of free and reduced lunch, respectively (Durham Public Schools, 2017b). Free and reduced lunch is used as a metric to understand the socio-economic status of the schools and neighborhoods that we are working in. 4 out of 5 schools have over 50% of the student body on free and reduced lunches, meaning these schools are in fairly poor neighborhoods in Durham, NC. Given the history of public schools in the South, many traditional public schools in Durham do not have as many resources as they need to help all their students achieve success.

# 4. Ethics

This study received IRB approval in the summer of 2018 through Duke University. Researchers working with the school-based data signed confidentiality and authorization agreements with ATI to analyze their de-identified school data. Given this study’s aims and population, we were unable to randomly assign Newcomer youth to either arm, and were unable to have a formal control group, as that would be unethical. Alongside this, we were unable to interview youth in this study.

# 5. The Art Therapy Intervention

## 5.1 Newcomers: A Broader Definition

Refugees make up a larger part of the immigrant population in the United States. This study worked alongside ATI's ongoing program, which works with Newcomer's more broadly. According to the U.S. Department of Education, a Newcomer is defined as "any foreign-born students and their families who have recently arrived in the United States" (U.S. Department of Education, 2017). We use this definition for inclusion into this study, however the summer camp arm worked with only refugee and asylum seeking youth, whereas the school-based program worked with all Newcomers.

## 5.2 History of the Newcomers Program

The Newcomer Program was first conceptualized in 2008 by a UNC master's student who saw a need in the Karen refugee community in Carrboro, North Carolina for mental health interventions that could work with non-native English speaking populations in Carrboro. According to the Director of ATI, the program began when the master's student approached ATI to start a group with middle school and high school refugee students after getting a small community grant. While the first year was not formally evaluated, participant and therapist feedback found the program to be helpful, and so Carrboro Public Schools continued implementing this program. From there, the Newcomers program blossomed across the Triangle Area. ATI now works with Durham Public Schools, Carrboro Public Schools, and various resettlement agencies to implement the

Newcomers Program. A formal evaluation of the Newcomers program was initiated in 2013-2014 by UNC master's students, wherein they evaluated the Burma Art Therapy Program (BATP). This study focused on high school and middle school Burmese students in Carrboro.

The study found that, "following 16 weeks of art therapy, BATP participants reported fewer symptoms of anxiety. Changes in median scores for perceived and actual symptoms of anxiety were statistically significant (p=.051 and p < ,0001, respectively). The proportion of participants reporting symptoms of anxiety decreased from 20.0% at baseline to 19.2% at follow-up. Concurrently, the proportion of participants reporting feeling 'free from anxiety' increased from 50.0% at baseline to 65.4% at follow-up. According to teacher reports, participants who had severe difficulties in school decreased from 16.5% to 11.5%. Participants with overall positive self-concept increased from 26.7% at baseline to 38.5% at follow-up" (Rowe et al., 2017).

The 2013-2014 study is very different from the current evaluation. In the BATP evaluation, participants were older, came from the same country, and the most sever participants had individual therapy sessions **and** group sessions, and BATP participants had 50 more minutes of therapy. In addition, the statistical tests used to determine significance weren't clearly delineated. Given the differences and weaknesses in the 2013-2014 evaluation, I hope to provide a fuller picture of what ATI is doing, and how.

## 5.3 Curriculum of the Newcomers Therapy

According to the Director of ATI, the development of the Newcomers program was done collaboratively, and is currently managed in the same way. The Newcomers program does not have a curriculum, manual, or standard portfolio. This is one aspect of ATI's the Newcomers program that sets it apart from previous RCTs and other art therapy studies examining the impact of art therapy interventions with refugee populations in resettlement countries.

As a part of the ethos of the institute, the Art Therapy Institute of North Carolina does not work with manuals, curriculums, or standard portfolios because they see standardization of therapy as potentially dangerous to their clients. Therapists explained that standardized practices could negatively affecting a child by triggering unknown traumatic events in their past, especially given the levels of trauma refugee youth are exposed to and lack of prior knowledge with working with these individual children. As explained by therapists and the director of ATI, given the short amount of time of therapy per intervention arm, these therapists did not feel like it was ethical to bring up past trauma without having adequate time to work with these kids and resolve the trauma.

ATI is an expressive arts therapy organization, and they use visual, musical, movement-oriented, and narrative arts methods for their Newcomers Program. While they do not have a standard manual for the Newcomers Program, therapists work collaboratively to come up with and implement "directives."

“Directives” are broad aims therapists have per session with art-making activities attached to these aims, such as “introducing each other and the process,” would be attached to a “name ball game.” Other directives include ‘drawing something that makes you mad, sad, or glad’ and directives that focus on empowerment, identity building, community integration, and cultural acculturation. Sessions can have multiple directives, and therapists mention that if a directive is not working with a group, they will change the directive to best fit the session’s needs.

Directives are imagined and implemented by therapists. Directives are discussed between therapists and can be generated collaboratively with all therapists working for ATI. Therapists are supposed to attend weekly supervision sessions at ATI, where all therapists contracted with ATI meet to process their sessions and receive support and advice on ongoing challenges.

## 5.4 Curriculum of the Interventions

### 5.4.1 Summer Camp Curriculum

Therapists working the summer camp decided to create a theme for the refugee youth given the length of time (1 week) of the intervention. Given the age range of the refugee youth, the therapists chose a “superhero theme” for the week to foster empowerment and finding strengths in their individual characteristics. Therapists working with the two younger age groups focused on the super-hero theme, with directives that included making a mask and cape for their superhero, creating a superhero world and a bad guy world, and discussing what super power they had and why.

### 5.4.2 School-Based Curriculum

Therapists working the school-based program did not have an overarching theme for the school-based program, but had overarching goals of increasing prosocial behavior, belonging, and providing tools to manage stress. All three therapists implemented different directives each week, however all therapists repeated directives for groups at the same school. The first few sessions were geared towards building rapport, and establishing safety and trust. One therapist focused on identity building, another therapist focused on empowerment, and the last therapist was unable to provide feedback.

## 5.5 Intervention Population, Sample, Recruitment, and Consent

### 5.5.1 Defining the Newcomers Population

Newcomers in this study are any persons who is a refugee or migrant, or a child of a refugee or migrant. Newcomer populations are quite heterogeneous, and in a city like Durham, NC this means Newcomers come from all over the world. The countries of origin that this intervention worked with included children from Latin America, the Middle East, Southeast Asia, South Asia, Sub-Saharan Africa, and North Africa. Their length of time in the U.S. ranges from a few months to their entire life.

### 5.5.2 Intervention Sample

All Newcomer children in this study lived in Durham, NC at the time of the intervention. Children enrolled in either the summer camp or school-based

intervention were Newcomers defined in this way, from the ages of 4-14. All newcomer youth ages 4-14 living in Durham, NC were eligible to participate in the Newcomers Program.

### 5.5.3 Intervention Recruitment and Consent

Children participating in the summer camp were conveniently sampled from existing community relationships formed through the Kenan Refugee Project. Families with children in the eligible age range were notified about the summer camp art therapy program. Duke researchers followed-up with parents who expressed interest to obtain authorization for treatment. Participation in the summer camp for refugee youth was independent of parental participation in the evaluation of the Newcomers Program.

Children participating in the school-based program were chosen by teachers. Teachers were chosen by the lead ESL teacher at each school. Schools were chosen by the ESL coordinator of DPS. Many of the decisions that led to deciding which children participated in the school-based Newcomers Program were based off of the existing knowledge of the DPS ESL coordinator, lead ESL teachers, and teachers. This knowledge included familiarity with ATI's program and the needs of specific Newcomer youth. Researchers had no participation in the sampling, recruitment, and consent process of youth in the school-based program.

## 5.6 Summer Camp Implementation

The summer camp program had at most 31 children per day, with 23 number who participated in the total 10.5 hours of therapy. 7 children participated in 8.5 hours. 1 child participated in 4.5 hours. Children's ages ranged from 4 to 14, and either came from Syria, Iraq, Sudan, and Afghanistan.

The summer camp was implemented at the Kenan Institute for Ethics in early August 2018. There were originally 3 art therapists and 1 intern for the summer camp. The break down for ages of refugee youth per therapist was: 5-7, 8-9, 10-14. Each group had up to 10 refugee youth and as few as 7 per day, however attendance was not consistent across groups. The summer camp had 3 group therapy sessions of up to 10 children for two hours a day, for four days. The last day of the summer camp had two hours of therapy and a 30 minute community art show. Total hours of therapy were 10.5, however some refugee youth only received as little as 4.5 hours.

The oldest group had 1 therapist and 1 intern for the entire 5 days. The younger two groups had the same two therapists throughout the week, who switched age groups halfway through the 2.5 hour session, daily. Due to implementation challenges, an additional art therapist and intern were added on Thursday to the younger two groups, with 1 therapist helping in one room and an intern in the other. Each group had one Kenan Institute affiliated staff helping inside the room the entire week. Research staff worked as programmers throughout the week, focusing on logistics.

## 5.7 School Program Implementation

The school-based program ran from August 2018-January 2019 in five schools in Durham Public Schools (DPS) system. There were three elementary schools and 2 middle schools. There were three art therapists working across the 5 schools. There was a total of 71 students who participated in the school-based program. One therapist worked at each with two interns. There were 10 groups across the five schools, and each group had 3 to 9 students in each group. Each school has 2 groups, meaning there were 6 elementary groups and 4 middle school groups. Newcomer youth were pulled out of class to attend a 40 minute to 1 hour art therapy session every week. This program is an ongoing art therapy program that was established between ATI and DPS, and Duke researchers were not involved in the implementation of this program.

The school program had 10 groups across the 5 schools, with 71 youth participating. Due to loss to various loss-to follow-up reasons, there are a total of 53 students who have full data. Each group had 3 to 9 Newcomer youth participating for a range of 40 to 60 minutes. The range of therapy time per session was dependent on the therapist implementing the Newcomers program. One therapist (Participant 001) works at two elementary schools, with two groups at each school (Elementary - Group 4, N=6; Group 5, N=7) (Elementary - Group 6, N=3; Group 7, N=6). This therapist conducted 60 minute sessions with each group. The second therapist (Participant 004), worked at one elementary school and one middle school, with two groups at each school (Elementary - Group 8,

N=8; Group 9=8) (Middle School - Group 10, N=8; Group 11, N=6). This therapist conducted 50-55 minute sessions with each group. One therapist (Participant 005) worked at one middle school that had 2 groups (Middle School - Group 12, N=7; Group 13, N=8). This therapist conducted 40 minute sessions with each group.

# 6. Methods

## 6.1 The Evaluation of the Newcomers Program

### 6.1.1 Evaluation Population

Regarding the evaluation of the Newcomers program, parents and teachers served as proxies for youth's perspectives. What this means is that researchers did not directly ask children any questions regarding their mental health or experiences with art therapy. Instead, parents served as proxies for Newcomer youth during the summer camp program, and teachers served as proxies during the school-based program.

Eligibility of participation in the evaluation of the Newcomers program was dependent on if parents or teachers were connected to a Newcomer youth who participated in the Newcomers program. Parents or teachers who did not have children participating in the school-based or summer camp program were ineligible to participate in the evaluation of the Newcomers program. We used a convenience sampling framework with parents and teachers.

Therapists were also participants of the evaluation of the programs. Only therapists implementing the program were eligible to participate in the evaluation. Given their unique and rich knowledge of the aims and goals of the program and the implementation of the program, we used a purposive sampling framework when sampling for therapists.

### 6.1.2 Sample: Recruitment, Consent

Families were approached about the summer camp in their native language (Arabic or Farsi) and written consent was obtained for children's participation in the summer camp and for parents participation in the evaluation. It was explained multiple times that a child's participation in the summer camp did not mean that parents had to participate in the evaluation. Consent for both the intervention and evaluation were obtained at the same time. Researchers collected all consents and data for the summer camp.

The school-based intervention is an existing program run by ATI and DPS. All quantitative data collected for the school-based program was secondary data, however the qualitative data was collected by the first author. Given this existing relationship, recruitment and consent of youth into the Newcomers intervention was done by ATI and DPS. Recruitment and consent into the evaluation of ATI's art therapy program was done by the primary author. Again, participation in the art therapy intervention was not predicated on the participation of the evaluation of the art therapy program.

Researchers recruited and consented parents and therapists into the evaluation of both the summer camp and school-based program for this study.

## 6.2 Procedures

### 6.2.1 Data Collection

Data consisted of quantitative and qualitative data. Quantitative data was collected by the first author, a research associate at the Kenan Institute, and ATI

staff. Paper Strengths and Difficulties Questionnaire's (SDQ) + impact Questionnaire were given to parents and teachers, then collected, hand scored, and entered into an encrypted excel file. The first author scored and analyzed all SDQs using the standard SDQ scoring sheet. The first author collected pre- and post-intervention data using the with parents for the summer camp intervention arm of this study. ATI collected pre- and post-intervention data using the SDQ with teachers for the school-based intervention arm of this study. Parents and teachers answer questions about one youth's behavior twice, once before the intervention and once after. Most parents and teachers answered SDQs for multiple children. Each Newcomer youth has two data points from the SDQ.

Parents were given the choice of what language they would like to answer the SDQ in. Parents in this study answered the SDQ in English or Arabic. Parents who had difficulty reading were given the opportunity for the SDQ to be enumerated by the first author or research associate at the Kenan Institute for Ethics. The first author or research associate was present during the time parents filled out the SDQ. If parents had difficulty understanding the concept of the question, researchers were on hand to explain what the question "meant."

All teachers used the English version of the SDQ + Impact instrument provided by ATI. Teachers were instructed to fill out each questionnaire per child, twice. Once before, then after, the intervention. Most teachers who have students participating in the school-based intervention have previously worked with ATI or participated in the school-based program. ATI then collected all the

SDQs and de-identified the data. This de-identified data was then given to Duke researchers to enter analyze.

Qualitative data consisted of therapist notes, focus groups, and in depth interviews (IDIs). Therapist notes consist of the short, summaries of each therapy session written by therapists and provided to ATI as a form of clinical supervision. These were de-identified and then provided to Duke researchers. Focus groups and IDIs were conducted by the first author with parents, teachers, and therapists in coffee shops in the Triangle and at the Kenan Institute for Ethics. The first author has six years of experience working with refugee populations, training in qualitative research methods, and a background in clinical psychology.

Focus groups and IDIs were conducted with parents (1 focus group - 20 minutes) and therapists (1 focus group - 1.5 hours, 3 interviews - 1 hour each) after the summer camp and school-based program within a month of the program finishing. All qualitative data was collected in English and recorded for transcription. Transcription was done by the first author within a week of the interview or focus group. There was no physical incentive to participate in the evaluation.

## 6.3 Data Collection Instruments

### 6.3.1 Quantitative Data Instrument

The Strengths and Difficulties Questionnaire (SDQ) + Impact is the instrument ATI uses when evaluating their programs. The SDQ has been

professionally translated into over 88 languages, and is widely used globally to evaluate the mental health of people through a behavioral checklist. The SDQ is used by a variety of professions that need to quickly assess the mental health status of a person, such as screening individuals for further evaluation (UK National Health System, n.d.).

The SDQ has 25 attributes, and is divided into 5 scales (A. Goodman, Lamping, & Ploubidis, 2010; R. Goodman, Meltzer, & Bailey, 1998; Robert Goodman, 1997; van den Heuvel et al., 2017). These 5 scales are: emotional problems, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviors, with each scale having a score out of 10 (Robert Goodman, 1997). Total difficulties score is calculated by adding the scores of emotional problems, conduct problems, hyperactivity/inattention, and peer relationship problems. The SDQ includes scoring guidelines that breaks down all 5 scales into 4 normative classifications: "Close to Average," "Slightly Raised," "High/Low" and "Very High/Very Low." Difficulty scales are "high/Very high," and the prosocial scale is "Low/very low" (UK National Health System, n.d.). These classifications and the cut-off scores were determined with a UK population, with 80% being "close to average," 10% being "slightly higher," 5% being "high/low", and 5% being "very high/very low" (A. Goodman et al., 2010; UK National Health System, n.d.). While these categories are not official diagnoses, they provide clinicians and researchers using the SDQ the ability to quickly assess if particular youth need further assessment or potential treatment

(UK National Health System, n.d.). Any youth that scores outside the "Close to Average" range are considered to be abnormal, and it is recommended that these youth go in for further assessment (UK National Health System, n.d.).

The SDQ that ATI uses includes the impact supplement. The impact supplement asks respondents if Newcomer youth have "problems," and the temporality, "distress, social impairment, and burden to others" that these problems have created. (SDQ) This study used the English, Arabic, and French versions of the SDQ for the age appropriate child. Appendix 1 includes copies of the SDQs used in this study.

### 6.3.2 Qualitative Data Instruments

For the qualitative data, researchers generated two sets of questions, one for therapists and one for parents. Therapists had a set of questions, and parents had another set of questions. Questions did not differentiate between focus groups, or between semi-structured interviews across the two sets of populations. What this means is that therapists were asked the same questions, and parents were asked the same questions, regardless of if they were a part of the summer camp or the school-based program. Therapists questions concerned their understanding of the program's goals and aims, their planning, their backgrounds, their experiences implementing the Newcomers program, their expectations, and their reflections. Questions with parents concerned if they saw impact from the art therapy, what they saw, observed behavioral changes, and their general impressions about the Newcomers intervention.

## 6.4 Data Collection Methods

Therapists interviews and focus groups followed a similar structure. First, we discussed the goals and aims of the program, then talked about how they planned for the program. Then, we discussed the implementation, including experiences and challenges. We then transitioned into discussing their backgrounds in art therapy. While interview guide questions were consistent, different probes were used throughout the focus groups or interviews.

Focus groups with parents were fairly short (1 FG = 20 minutes). These discussions revolved around how they saw possible impact or value of the art therapy program. There were a few challenges experienced when conducting the focus group with parents, as English was not their first language. However, the two women who participated in the focus group are verbally proficient in English, allowing for me to gain insights. This focus group lasted 20 minutes.

# 7. Analysis

## 7.1 Analysis Plan

Given this study is a mixed methods study, I will use both quantitative and qualitative data to evaluate the impact of the ATI's Newcomers program. The quantitative data will examine two questions: 1. does each intervention arm (school-based and summer camp) have impact on their own? 2. Did one arm have more impact than the other?

To answer the first question, I will first provide basic descriptive statistics of each arm (summer camp and school-based program), and examine correlations between pre- and post-SDQ scores per scale within participants. In addition to correlations, we will use a difference of means 2-tailed t-test within subjects to compare the differences in averages between pre- and post-intervention scores on the SDQ, broken down by each scale. This t-test will determine if the differences in averages between the pre- and post-SDQ scores are statistically significant. We hope to see a statistically significant decrease in the 4 difficulties scales and total difficulties scale, and an increase in prosocial behavior in both the summer camp and the school-based intervention.

To answer the second question, we must do two things. First we will examine the pre-intervention scores through descriptive statistics to determine if the two populations are similar. We will also run a t-test of independent samples on each scale of the SDQ using the pre-intervention scores to determine if the differences between groups are significant. Theoretically, given the age range and

ethnic backgrounds are similar in each sample arm, the pre-intervention scores will have similar descriptive statistics. Once we determine if the two samples have baseline homogeneity, we will then use a 2-tailed t-test of independent samples using the post-scores of both interventions to determine if there was a difference in impact between the two arms.

The qualitative data will be analyzed to understand how ATI works, how the Newcomers Program is implemented, the background of therapists, and the benefits not seen through the quantitative data. Transcription of all focus groups and IDIs were created within a week of the event. Transcription included transcribing and re-listening to interviews three times before erasing recordings. All focus groups and IDIs were conducted in English. Analysis of the qualitative data used a applied thematic analysis method (ATA), where "ATA is a type of inductive analysis of qualitative data that can involve multiple analytic techniques" (Guest, MacQueen, & Namey, 2012). I used an exploratory method, in which researchers read the data multiple times, then created themes from the data. After creating themes, researchers created nodes to code the data to continue exploring the data for more themes. These themes were then used to structure the following analysis. The data was analyzed using the nVivo analysis software, with another coder, coding 10% of the data to follow through with inter-rater reliability.

# 8. Results

## 8.1 All Demographics

This section will outline the known demographic breakdown of the intervention participants. This section will first provide a scope of the known ages, gender, and country of origin breakdown of intervention participants, i.e. newcomer youth. Then I will outline the baseline scores of the SDQ of intervention participants, partitioned into the SDQ's classifications of "close to average," "slightly raised/slightly lowered," "high/low," and "very high/very low." Following a breakdown of intervention participants' demographics, I will then provide a breakdown of the demographics of the evaluation participants, namely the therapists, teachers, and parents.

### 8.1.1 Demographics of Newcomer Youth (Intervention Participants)

Table 1 below outlines the basic demographics for the intervention participants. There was a total of 13 groups across the summer camp and school-based program, with a minimum of 3 and a maximum of 10 students per group per session. Ages ranged from 4-14, or all of elementary and middle-school aged children. Almost all therapy groups were mixed gender except one group in middle school. Countries of origin include Iraq, Tanzania, the Netherlands, unspecified Asian and African countries, Uganda, Afghanistan, Syria, Sudan, the DRC, El Salvador, Honduras, Mexico, and Guatemala.

**Table 1: Demographics Breakdown of Intervention**

| Group | Intervention | # of Youth | Gender | Age Group | Therapist |
|---|---|---|---|---|---|
| 1 | Summer Camp | 11 | Mixed | 4-7 | Therapist #1 & Therapist #4 (1 intern & Therapist #3 for 1.5 days) |
| 2 | Summer Camp | 10 | Mixed | 8-9 | Therapist #1 & Therapist #4 (1 intern & Therapist #3 for 1.5 days) |
| 3 | Summer Camp | 10 | Mixed | 10-14 | Therapist #2 & 1 intern |
| 4 | School | 6 | Mixed | 7-8 | Therapist #1 & 2 interns |
| 5 | School | 7 | Mixed | 9-10 | Therapist #1 & 2 interns |
| 6 | School | 3 | Mixed | 5-10 | Therapist #1 & 2 interns |
| 7 | School | 6 | Mixed | 5-10 | Therapist #1 & 2 interns |
| 8 | School | 8 | Mixed | 5-10 | Therapist #3 & 2 interns |
| 9 | School | 8 | Mixed | 5-10 | Therapist #3 & 2 interns |
| 10 | School | 8 | Mixed | 11-14 | Therapist #3 & 2 interns |
| 11 | School | 6 | Mixed | 11-14 | Therapist #3 & 2 interns |
| 12 | School | 7 | Mixed | 11-14 | Therapist #5 & 2 interns |
| 13 | School | 9 | Girls | 11-14 | Therapist #5 & 2 interns |

Participants in the evaluation consisted of teachers, therapists, and parents. There were 4 therapists, 15 parents, and 22 teachers who participated in the evaluation. Parents and teachers reported SDQ responses both pre- and post-intervention, and there was one focus group conducted with parents. Parents

were from the same backgrounds as intervention participants (Newcomer youth). Teacher's demographics are unknown, as we were unable to interview them. Therapists were interviewed through focus groups and in-depth interviews. All therapists were white women who were accredited through national licensed clinical social working programs.

For the summer camp, parents served as proxies and came from participant's respective countries. There were 15 parents between the 31 children participating in the intervention, and all 15 parents were offered the opportunity to participate in the evaluation of the art therapy program. All parents who were approached about the evaluation consented to participate in this study. There were 14 women and 1 man who participated in the evaluation. However, only 2 Sudanese women chose to participate in the focus group. The focus group lasted 20 minutes, and was conducted 3 weeks after the end of the summer camp intervention. One woman had 2 children participating in the summer camp, and the other had 1 child who participated in the summer camp.

There were a total of 4 art therapists in the summer camp who conducted the therapy, and 2 interns. The summer camp had three therapists and 1 intern who began the week, with 1 art therapist and 1 intern being brought in on Thursday. 1 focus group (1.5 hours) and 1 semi-structured interview (1 hour) was conducted with the four therapists, Participants 001, 002, 003, and 004. The focus group was conducted with Participants 001, 002, and 003, with one therapist being connected to via FaceTime. An in-depth interview was conducted

with Participant 004. All therapists were women, and had from 1 to 4 years of experience as art therapists.

Participant 001 had worked with some of the refugee youth in the Spring of 2018 during a pilot program and Participant 001was the only therapist who had led a Newcomer youth group prior to the summer camp. Participant 002 prior to the summer camp had never led a refugee youth group, and worked primarily with adults. Participant 002 worked with an intern from the beginning of the week. Participant 004 prior to the summer camp worked with youth in individual sessions, and had no experience leading groups prior to the summer camp. Due to challenges during the summer camp, Participant 003 joined Participant 004's room and another intern assisted Participant 001 on Thursday.

For the school based program, there are three therapists who conducted the DPS semester-long program. Two of the three therapists (Participants 001 and 003) also implemented the summer program, however only one of the two overlapping therapists worked the entire summer camp (Participant 001). The school program has 2 interns assigned to each therapist, with a total of 6 interns and 3 therapists for 10 groups across 3 elementary and 2 middle schools in Durham, NC.

Each group had 3 to 9 Newcomer youth to start, and come from a larger range of countries, including El Salvador, Guatemala, Honduras, Mexico, Afghanistan, Iraq, Syria, and the DRC. There were 17 teachers who completed the SDQ across all 5 schools. While I attempted to interview teachers for the

qualitative assessment of the school program, the DPS ESL coordinator was not able to connect me to teachers. Thus all qualitative data for the school program are from in-depth interviews with 2 of the 3 art therapists who worked in 2 middle schools and 1 elementary school.

## 8.2 Results - Summer Camp

### 8.2.1 Quantitative Data

The summer camp began with 31 Newcomer youth, however due to various loss-to follow-up there is full data on 30 Newcomer youth. While there was no loss to follow-up, not all Newcomer youth participated in the full 10.5 hours.

**Table 2: Classification Breakdown of Newcomer Youth (Pre-Test, Summer Camp, Individuals)**

| | Hyperactivity/ Inattention | | Emotional Problems | | Conduct Problems | | Peer Problems | | Total Difficulties | | Prosocial Behavior | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close to Average | 27 | 90% | 26 | 87% | 25 | 83% | 14 | 47% | 25 | 83% | 16 | 53% |
| Slightly Raised (Lowered) | 3 | 10% | 2 | 7% | 2 | 7% | 9 | 30% | 4 | 13% | 6 | 20% |
| High (Low) | 0 | 0% | 2 | 7% | 3 | 10% | 3 | 10% | 1 | 3% | 4 | 13% |
| Very High (Low) | 0 | 0% | 0 | 0% | 0 | 0% | 4 | 8% | 0 | 0% | 4 | 8% |

This table shows the baseline number of summer camp Newcomer youth who fall into each classification. As we can see, this sample has similar or higher percentages when compared to the standard (standard population = 80% of the population is close to average) in total difficulties (83% close to average), emotional problems (87% close to average), and conduct problems (83% close to average)(A. Goodman et al., 2010). However, this sample has high rates of poor

prosocial behavior with 47% scoring above average, and peer problems with 53% scoring above average. However, these high rates could be because parents are reporting on their children's behaviors. Given parents mostly watch their children interact with siblings, perception of peer problems and prosocial behavior could be skewed.

**Table 3: Classification Breakdown of Newcomer Youth (Post-Test, Summer Camp, Individuals)**

| | Hyperactivity/ Inattention | | Emotional Problems | | Conduct Problems | | Peer Problems | | Total Difficulties | | Prosocial Behavior | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close to Average | 27 | 90% | 25 | 83% | 23 | 77% | 19 | 63% | 26 | 87% | 15 | 50% |
| Slightly Raised (Lowered) | 3 | 10% | 2 | 7% | 5 | 17% | 6 | 20% | 1 | 3% | 10 | 33% |
| High (Low) | 0 | 0% | 3 | 10% | 2 | 7% | 3 | 10% | 2 | 7% | 3 | 10% |
| Very High (Low) | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 2% | 0 | 0% | 2 | 4% |

As we can see in this table, there was a nominal decrease in **number** of youth with above average scores on every scale regarding difficulties except hyperactivity/inattention, and a nominal increase in prosocial behavior. To further explore our data, we will now turn to the descriptive statistics, followed by correlations and p-values for t-tests.

Table 4 provides the breakdown of the summer camp's statistic descriptives. Data in this table refers to the **scores** individuals received on each scale. Each Newcomer youth had an aggregated score for each scale (emotional problems, conduct problems, hyperactivity, peer problems, and prosocial score) in both the pre and post-test evaluation. This table breaks down the mean,

median, range, and standard deviation of each scale, before and after the intervention, and the difference between the pre- and post-intervention scores.

**Table 4: Summer Camp Basic Descriptive Statistics**

| SDQ Breakdown | Mean | Median | Range | Standard Deviation |
|---|---|---|---|---|
| **Pre-Prosocial** | 7.6 | 8 | 3-10 | 1.904622327 |
| **Post-Prosocial** | 8.1 | 7.5 | 5-10 | 1.729061934 |
| **Prosocial (Difference)** | 0.5 | 0 | X | 2.542738139 |
| **Pre-Hyperactivity** | 3.067 | 3 | 0-7 | 2.211776214 |
| **Post-Hyperactivity** | 2.033 | 2 | 0-7 | 2.173243775 |
| **Hyperactivity Problems (Difference)** | -1.033 | 0 | X | 1.973677354 |
| **Pre-Emotional Problems** | 1.4 | 1 | 0-5 | 1.6103116 |
| **Post-Emotional Problems** | 1.767 | 2 | 0-6 | 1.774985834 |
| **Emotional Problems (Difference)** | 0.367 | 0 | X | 1.884296875 |
| **Pre-Conduct Problems** | 1.367 | 1 | 0-4 | 1.29942516 |
| **Post-Conduct Problems** | 1.267 | 1 | 0-4 | 1.337350271 |
| **Conduct Problems (Difference)** | -0.1 | 0 | X | 1.373392477 |
| **Pre-Peer Problems** | 2.567 | 3 | 0-6 | 1.59056124 |
| **Post-Peer Problems** | 2.3 | 2 | 0-7 | 1.441981395 |
| **Peer Problems (Difference)** | -0.267 | 0 | X | 1.79910578 |

| **Pre-Total Difficulties Score** | 8.4 | 7.5 | 2-17 | 4.255625081 |
|---|---|---|---|---|
| **Post-Total Difficulties Score** | 7.367 | 7 | 0-18 | 4.31903033 |
| **Difficulties (Difference)** | -1.033 | 0 | X | 4.09779868 |

When looking at the various descriptive statistics, we can see that the range of scores per scale in this sample was quite broad. All means and medians of each scale fall into the "close to average" range per the SDQ classification. When looking at differences between the pre- and post- scores, we see that prosocial behavior increased and hyperactivity/inattention, conduct problems, emotional problems, peer problems, and total difficulties decreased. Theoretically, this is what we should see as it hints to the possibility that the art therapy intervention is working.

To further determine if the intervention had impact, we conducted t-tests and correlations between pre and post-intervention scores within subjects. Table 5 shows all t-tests and correlations.

**Table 5: Correlations and T-tests of Pre and Post Scores**

| | *Hyper-activity* | *Emotional Problems* | *Conduct Problems* | *Peer Problems* | *Total Difficulties* | *Prosocial Behavior* |
|---|---|---|---|---|---|---|
| *Correlation* | 0.5950 | 0.3836 | 0.4577 | 0.2992 | 0.5433 | 0.0230 |
| *T-Test p-value* | 0.0076 | 0.2953 | 0.6930 | 0.4235 | 0.1778 | 0.2903 |

When looking at the p-value of these t-tests, we can see that the difference in means of hyperactivity were statistically significant in the pre- and post- scores when using the standard cut-off of $P<.05$. Unfortunately, no other scale had statistically significant differences. To further inform why we see modest impact, I turn to the interviews and focus groups conducted with parents and therapists.

### 8.2.2 Qualitative Data

The following section explores the potential reasons behind the modest impact seen in the summer camp, and explore other benefits of the intervention not captured in the SDQ.

**Expectations, Goals, Aims of Therapists for Summer Camp:** One of the most challenging aspects about the summer camp's implementation was the lack of clarity between researchers and implementers on 1. What style of therapy they should engage in 2. What the structure of the summer camp should look like 3. The roles of the researcher and the therapists 4. The overall purpose of the intervention. This lack of clarity was discussed with all four therapists who worked in the summer camp, highlighted by the focus group's discussion on defining roles and setting goals together. According to therapists, this lack of clarity was one of the primary challenges in implementing the summer camp.

**Goals & Aims for Summer Camp**: Another important finding from interviews with therapists showed that there the goals and aims for the refugee youth were broad. During the focus group, two therapists discussed how they understood the summer camp's goals and aims and said,

> “Participant 001: Do a theme, to where it would empower them, kind of build up self confidence, self esteem, just that was kind of the broad goal.
>
> Participant 002: um, yeah I think when we brainstormed about it, that was, and walking in having worked with the population, I think we kind of assumed it would be an, “art is therapy” approach working in a camp setting. um, and yeah, confidence booster, self-efficacy. ”

When prodded about an “art is therapy” approach, it seemed that the therapists saw art as therapeutic itself, rather than art as a medium or pathway for psychotherapy. When the therapists discussed what “art as therapy” meant, one described this form of therapy as something you “hope for the best” with, in terms of long term gains for the children. When discussing this style of therapy, one therapist used a tangent to discuss how she saw her work as being therapeutic. As she described,

> “And, like I talked to another person, this is a sidebar, and she’s at my old internship placement that is a wide range of people throughout the day. And she’s like, “did you feel like you’re doing therapy?” Because um, like, **there’s clinical therapy and then there’s this kind, where you know, “art is therapy,” you know, you kinda have to, get it in there.** And so, then I explained it like, what I did, and like I roll with the punches and

try to, you know, work with them on the spot" and it's more like this, and she was like, ok, so that was so much better." (emphasis added)

A concern about this style of work is the lack of accountability mechanisms when implementing this style of therapy. Without clear guidelines, aims, goals, or methods of implementation, it becomes difficult to evaluate impact. In addition, if therapists themselves feel like they're not doing clinical work, how can they say the program they're implementing is therapy?

**Expectations**

A potential influence on the impact of the summer camp could be due to the therapist's expectations for the refugee youth themselves, due to their past work experiences. Of the three therapists that started the intervention, only Participant 001 had no contact with the refugee youth in the summer camp prior to the first day. Participant 001 had some experience working with these kids through a Spring 2018 pilot study. None of the therapists were given information prior to the intervention about the kids, so they only had their past work experiences to base expectations off of. Only one of the therapists who worked the full week had worked as a group leader with Newcomers, which proved to be problematic in the implementation of the intervention.

Given the majority of the therapists had little experience with either one of or a combination of 1. Leading a group, 2. Newcomers, 3. Working with children 4. Working in a summer camp setting, expectations of what could be

accomplished in a summer camp model with Newcomers were low. One of the therapists mentioned that they were surprised by how well the summer camp went. When asked about what she expected to see in terms of behavioral change, this therapist referenced her work with children in self-containment classes, or children with special educational needs, to talk about the intervention's impact. For her, the summer camp went better than she anticipated and she saw small gains in children's behavior such as reduction in recovery time for stressful events, and a child's ability to articulate their needs.

However, she did not have high expectations for the refugee youth to begin with. It is important to recognize that vulnerable populations are not the same -- expectations for what can be accomplished for one population should not be mediated by an entirely different one. Another potential reason for her lack of expectations for the Newcomer youth could come from her lack of experience working with this population. One of the most difficult aspects of Newcomer programing is the wide variance in a Newcomers abilities, which is often mediated by their experiences in their countries of first asylum and/or countries of origin. This is what makes designing and implementing programs difficult for this population.

## Challenges

### Time

Time was seen as a significant factor in implementation. One therapist said that "a week is a really short amount of time" and that to achieve "goals you have to

build rapport." Time was connected to the concept of rapport repeatedly in the interviews and focus groups with therapists. Rapport in this study means the relationship between the therapists and Newcomer. Time was seen as a barrier towards building rapport, as rapport "takes time" to build, and given the "shortness" of the weeklong intervention, time was seen as a barrier towards effective implementation. However, this same therapist stated that she was "so surprised about building rapport so quickly… but ummm…. most of my experience is working with um… working with students with special needs in groups." As we can see from this statement, this therapist was surprised about the amount of time it takes to build rapport because her expectations for the youth themselves. This pulls into question a more serious concern regarding the implementation of the program: what does it mean for therapists themselves to have low expectations for the program? Does this affect the implementation, and if so, how?

Another important aspect of time in this study is the amount of time per session. The summer camp had longer sessions, something the therapists were concerned about, given the "attention span" of people ages 4-14. Participant 004 stated that:

> "I don't, the thing is, too, I feel like when I say that it sounds like I just want more time, but I feel like, it's also, you're also working under an attention span. So, ummm… I don't know if it's, I don't know if it… maybe if it was the scope of our

> project? Like we were trying to get a lot done in a short amount of time and therefore we were working the whole time, and we didn't have as much time to process. And, but, if we had extended the time, we totally would've lost them, you know? Because of attention span. But if we, maybe were able, to make the project itself simpler maybe? Then we might've had more time, we would've finished, we still would've had their attention span…"

Here we can see that the participant is articulating the importance of balancing between creating a project that is engaging for youth, that would provide time needed to "process," and that wouldn't be too easy that youth would become disengaged. Time is clearly an important part of the planning process, and the way that therapists see time and use time within the daily sessions is important to the structure of the therapy session.

**Structure**

Other summer camp challenges included the number of children in each group and the lack of structure. All therapists mentioned that the ratio of children per therapist was larger than they were expecting, and pointed to this being a large problem for implementation. Another problem that was identified by the therapists was the lack of structure in 1. The therapist's time with the refugee youth, and 2. The structure of the overall summer camp. The following

section will focus on the overall camp structure, and the need and lack of, structure as identified by the therapists.

The therapist who joined the summer camp on day 4 mentioned that,

> "one of the most important factors in the time-sensitive, short brief therapeutic treatment is the structure. And I think it's really important to have a pretty, umm… I don't want to say rigid, but a pretty well maintained structure and consistency in order for it to really…. Be able opt hold the space, and the kids, can, you know, know what is predictable, feel safe, and I think that's what helps build the relationship quicker."

This particular quote is incredibly insightful, and points to how structure influences the level of therapy. Not only is structure important in creating and maintaining a highly therapeutic space, it was evident that this therapist did not see the level of structure needed to have strong impact. This is evident when therapists talked about what would be ideal for this population in this time frame, and then would follow up this statement with, "but we tried our best."

**Parent Feedback**

Despite having modest impact in reducing difficult behavior and increasing prosocial behavior, parents reported that their children enjoyed the summer camp. Parents expressed their appreciation of the art therapy program,

and mentioned that they would like the next iteration to be longer. Parents talked about how their children enjoyed the program, and how their children had momentary behavioral change, including being able to sleep better and being better at listening. However, when asked if children had lasting change, parents laughed and quickly said no.

## 8.3 Results - School Program

The school program began with 71 Newcomer youth, however due to various loss-to follow-up there is full data on 53 Newcomer youth. Reasons for loss to follow-up include: students moved schools or cities, teachers did not complete either a pre- or post-SDQ for a student, and mistakes during the de-identifying data process. While the exact number of hours per student is unknown, therapists notes show that not all students attended each session.

### 8.3.1 Quantitative Data

This section will examine the impact of the school-based program through analysis of the SDQ. Table 6 below shows the baseline number of school-based Newcomer youth who fall into each classification.

**Table 6: Baseline Classification Breakdown of Newcomer Youth (Pre-Test, School, Individuals)**

| | Hyperactivity/ Inattention | | Emotional Problems | | Conduct Problems | | Peer Problems | | Total Difficulties | | Prosocial Behavior | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close to Average | 38 | 72% | 42 | 79% | 48 | 91% | 29 | 55% | 36 | 68% | 18 | 34% |
| Slightly Raised (Lowered) | 10 | 19% | 3 | 6% | 2 | 4% | 18 | 34% | 7 | 13% | 13 | 25% |
| High (Low) | 2 | 4% | 5 | 9% | 2 | 4% | 4 | 8% | 5 | 9% | 15 | 28% |

| Very High (Low) | 4 | 8% | 0 | 0% | 1 | 2% | 2 | 4% | 1 | 2% | 21 | 40% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

As we can see, this sample has higher baseline rates of participants with above average scores than the standard population (standard population = 80% of the population is close to average), on hyperactivity/inattention (28%), peer problems (45%), total difficulties (32%), and poor prosocial behavior (66%), whereas this sample had similar or higher rates of "close to average" participants in emotional problems (79%) and conduct problems (91%). However, these high rates could be because teachers are reporting on their children's behaviors. Given teachers are working in classes of 20 to 30 students, it might be difficult to assess an individual's emotional problems. In addition, many teachers systematically skipped a question regarding prosocial behavior, which could be one of the reasons why we see so many school youth with low prosocial behavior scores. These limitations will be further explored in the discussion.

**Table 7: Classification Breakdown of Newcomer Youth (Post-Test, School, Individuals)**

| | Hyperactivity/ Inattention | | Emotional Problems | | Conduct Problems | | Peer Problems | | Total Difficulties | | Prosocial Behavior | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close to Average | 43 | 81% | 46 | 87% | 47 | 89% | 34 | 64% | 39 | 74% | 28 | 53% |
| Slightly Raised (Lowered) | 6 | 11% | 2 | 4% | 3 | 6% | 13 | 25% | 6 | 11% | 8 | 15% |
| High (Low) | 1 | 2% | 2 | 4% | 1 | 2% | 5 | 9% | 4 | 8% | 8 | 15% |
| Very High (Low) | 3 | 6% | 2 | 4% | 2 | 4% | 1 | 2% | 1 | 2% | 16 | 30% |

As we can see in this table, there was a decrease in number of youth with above average scores on every scale regarding difficulties, and an increase in prosocial behavior. To further explore our data, we will now turn to the descriptive statistics, followed by correlations and p-values for t-tests.

Table 8 below provides a summary glance of the school's scores. Data in this table refers to the **scores** individuals received on each scale. This means that Newcomer youth had a score for each scale (emotional problems, conduct problems, hyperactivity, peer problems, and prosocial score) in both the pre and post-test evaluation. This table breaks down the mean, median, range, and standard deviation of each scale, before and after the intervention, and the difference between the pre- and post-intervention scores.

**Table 8: School-Based Summary Statistics**

| SDQ Breakdown | Mean | Median | Range | Standard Deviation |
|---|---|---|---|---|
| **Pre-Prosocial** | 4.925 | 5 | 3-7 | 1.2534 |
| **Post-Prosocial** | 5.132 | 6 | 2-9 | 1.4283 |
| **Prosocial (Difference)** | 0.208 | 0 | X | 1.2914 |
| **Pre-Hyperactivity** | 3.736 | 4 | 0-10 | 2.8226 |
| **Post-Hyperactivity** | 2.590 | 2 | 0-10 | 2.8651 |
| **Hyperactivity Problems (Difference)** | -1.151 | -1 | X | 2.2136 |
| **Pre-Emotional Problems** | 2.019 | 1 | 0-7 | 1.8344 |
| **Post-Emotional Problems** | 1.679 | 1 | 0-8 | 1.7626 |
| **Emotional Problems (Difference)** | -0.334 | 0 | X | 2.2866 |
| **Pre-Conduct Problems** | 0.755 | 0 | 0-6 | 1.2695 |
| **Post-Conduct Problems** | 0.679 | 0 | 0-5 | 1.2826 |
| **Conduct Problems (Difference)** | -0.075 | 0 | X | 1.1068 |
| **Pre-Peer Problems** | 2.453 | 2 | 0-7 | 1.7161 |

| | | | | |
|---|---|---|---|---|
| **Post-Peer Problems** | 1.868 | 2 | 0-6 | 1.7763 |
| **Peer Problems (Difference)** | -0.585 | 0 | X | 1.7479 |
| **Pre-Total Difficulties Score** | 8.962 | 8 | 0-20 | 4.5000 |
| **Post-Total Difficulties Score** | 6.811 | 6 | 0-23 | 5.3711 |
| **Difficulties (Difference)** | -2.151 | -2 | X | 5.0360 |

When looking at these descriptive statistics, we can see that the range of scores per scale in this sample was quite broad. All means and medians of each scale fall into the "close to average" range per the SDQ classification except the pre-intervention peer problems average. This average was in between the "close to average" (score of 0-2) and "slightly raised" (score of 3-4) classifications. When looking at differences between the pre and post scores, we see that prosocial behavior increased and hyperactivity/inattention, conduct problems, emotional problems, peer problems, and total difficulties decreased. Theoretically this makes sense, as it hints to the possibility that the art therapy intervention is working to increase prosocial behavior and decrease maladaptive behavior.

To further determine if the intervention had impact, we conducted t-tests and correlations between pre and post-intervention scores within subjects. Table 9 shows all p-values for the two-tailed t-tests within subject statistics and correlation statistics for the school-based program.

**Table 9: Correlation Statistics and P-Values of Pre and Post-Intervention Scores Within School-Based Program Subjects**

| | *Hyper-activity* | *Emotional Problems* | *Conduct Problems* | *Peer Problems* | *Total Difficulties* | *Prosocial Behavior* |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| *Correlations* | 0.6972 | 0.1922 | 0.6239 | 0.4994 | 0.5304 | 0.5428 |
| *T-Test p-value* | 0.0004 | 0.2846 | 0.6217 | 0.0183 | 0.0030 | 0.2473 |

When looking at the p-value of these t-tests, we can see that the difference in means of hyperactivity (p=0.0004), peer problems (p=0.0183), and total difficulties (p=0.0030) were statistically significant, when using the standard cut-off of P<.05. What this means is that the pre-intervention averages and post-intervention averages of each scale were statistically significantly different from each other. The strong correlations between the pre and post-intervention score for hyperactivity (.6972), peer problems (.4494), and total difficulties (.5304) support this finding. Unfortunately, emotional problems, conduct problems, and poor prosocial behavior did not have statistically significant t-tests. To further inform these statistically significant results, I will now turn to two interviews conducted with therapists about the implementation of the school-based program.

### 8.3.2 Qualitative Data

The following section explores the potential reasons behind the impact seen in the school program, and is separated into themes.

**Expectations, Goals, Aims of Therapists for School-Based Program**

All therapists working with the school-based program have worked previously with Newcomer populations and as group leaders with youth. 2 of the 3 therapists have implemented the Newcomers program in DPS prior to this

academic year. Given their background and the fact that the school-based program is one that has been running in DPS for some time, the expectations, goals, and aims of this program were much clearer than the summer camp.

**Expectations**

Given the school-based program is an ongoing program, therapists had much clearer expectations of what could be accomplished with this population in the daily sessions and the overall program. Again, these expectations were mediated by their past work, however all therapists have experience either implementing the Newcomers program or leading refugee groups.

**Goals & Aims for School-Based Program**

The goals and aims of the school-based program were broad, with the overall goal of focusing on providing tools for acculturation issues through a strength-based epistemology. However, each therapist focused on slightly different topics in regards to this. One therapist (005) focused on recognizing strengths, processing feelings, and providing new tools for being in a new society. Another therapist (004) focused on identity, and how to negotiate different identities in new social spaces. The last therapist was not available for interview, but through therapists notes I was able to ascertain that their goals focused on improving prosocial behavior and self-esteem. Similar to the summer camp, the goals and aims of the Newcomers program is not consistent across groups.

**Challenges**

**Language**

Unlike the summer camp, students in the school-based program had difficulties with English. Some of the ways therapists attempted to mitigate this was by providing instructions in Spanish, however that therapist and both interns were not fluent in Spanish. The larger number of Newcomer youth with limited English abilities could be due to how students are chosen to participate in the art therapy intervention. Given this program is run in close coordination with the ESL departments in schools and across the district, students could have been chosen to participate **because** they had limited English.

### Newcomer Youth Participation

The school-based program had problems with youth's willingness to participate in the art therapy, especially with the middle school population. Participation here means art making and processing. Both therapists who worked in middle school mentioned they had some difficulty in engaging middle-school aged youth. Participant 005 mentioned that processing rituals at the end of the session for both her groups were difficult to establish, as most youth were reluctant to share. One therapist (Participant 005) who had an all girls middle school group mentioned that the gendered separation sometimes helps establish trust and safety faster, allowing students to engage quicker with the therapists and therapy.

### Time

Time's connection to rapport building was highlighted once again in interviews with therapists. When probed about this connection, one therapist

stated that “ the longer you do [art therapy], the more effective it’s going to be because these kids get more comfortable. Because I think the longer you do it, the more these kids are going to want to share with me, and but it just takes awhile to build that trust.” (Participant 005). However, both Participant 005 and 004 mentioned difficulties in establishing a routine time for sessions. Logistical issues regarding time such as abnormal weather (i.e. hurricanes), national holidays (i.e. Labor Day), and official non-school days (i.e. teacher work days) affected the start date of the groups, the consistency (theoretically there should have been a session a week, but there were some weeks that were missed) and overall implementation of the school-based program.

**Structure and Transitions**

The school program’s structure was embedded within a normal school day, which influenced the amount of therapy time per session in some groups and transitions into and out of sessions. For some therapists, working in the schools meant working around a school’s daily routine. As Participant 005 mentioned, “I’d love to jump right into it but there’s always school announcements; the first couple of times I’d start explaining what to do and then the intercom would interrupt us so I just started waiting for the announcements to be done.” What this means is that this group effectively had 5 to 10 minutes less of therapy than the other groups.

Another challenge regarding the structure of the school program was the transition periods between classroom time and therapy time. All therapists

mentioned difficulties in mediating these transitions, however difficulties ranged by age group. For the elementary groups, therapists mentioned that the ending transition was difficult to manage, as many of the students were too invested in the art making to allow for group processing at the end of sessions. While this is a great problem to have, therapists mentioned it was difficult to mediate youth's desire to continue art making and the need to process the art. For the middle school groups, therapists mentioned the difficulty in transition youth from working on their art to group processing. Due to their reluctance to participate in the processing, one therapist re-structured the sessions to allow for more art making and less processing.

**Teacher Feedback**

This study was designed with the intention of getting feedback from teachers through focus groups and interviews, which unfortunately did not happen. All feedback from teachers received were written on SDQs, however not all teachers wrote comments on the SDQ, and not all comments referred directly to the art therapy program. However, comments that did refer to the program noted that there were positive changes in participants' behaviors, including an increase in confidence and an increase in ability to ask for help. These comments suggest that the Newcomers program had positive effects on participant's behaviors, attitudes, and self-concept.

## 8.3 Results - Summer Camp vs. School Program

To compare the two arms of this study, we must provide sufficient evidence that the two groups are comparable. While theoretically we can assume that both groups begin from similar baselines in terms of their behavioral strengths and difficulties, it is best to prove. This is why we ran 2-tailed t-tests to compare the averages of the baseline scores, to determine if the averages of the baseline arms were statistically significant. The table below shows the p-values of t-tests run to determine if the baseline scores of the summer camp and school based program are statistically significant. If these t-tests are significant, it means that any comparisons and conclusions drawn between the school and summer camp in these categories must be taken with a grain of salt.

**Table 10: Pre-Intervention T-Test Table**

| | Hyperactivity | Emotional Problems | Conduct Problems | Peer Problems | Total Difficulties | Prosocial Behavior |
|---|---|---|---|---|---|---|
| T-Test p-value | 0.2358 | 0.1147 | 0.0420 | 0.7618 | 0.5894 | 0.0000000723 |

What we can see in these p-values from the two-tailed independent t-tests is that between the summer camp and school based program, there was statistically significant differences in averages in conduct problems (p=0.0420) and in prosocial behavior (p=0.0000000723) between the summer camp and school-based program given p<.05. Given the significantly different baseline averages on conduct and prosocial behavior, we cannot compare the summer camp and school-based program on the prosocial behavior and conduct problems

scales. To further explore the baseline differences in impact of the two groups, we will now look at the breakdown of the participants classification per the SDQ's newest breakdowns.

**Table 11: Pre-Test Number and Percentage of Participants By SDQ Classification**

| | Hyperactivity/ Inattention | | Emotional Problems | | Conduct Problems | | Peer Problems | | Total Difficulties | | Prosocial Behavior | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close to Average | 27 | 90% | 26 | 87% | 25 | 83% | 14 | 47% | 25 | 83% | 16 | 53% |
| | 38 | 72% | 42 | 79% | 8 | 91% | 29 | 55% | 36 | 68% | 18 | 34% |
| Slightly Raised/ Lowered | 3 | 10% | 2 | 7% | 2 | 7% | 9 | 30% | 4 | 13% | 6 | 20% |
| | 10 | 19% | 3 | 6% | 2 | 4% | 18 | 34% | 7 | 13% | 13 | 25% |
| High/ Low | 0 | 0% | 2 | 7% | 3 | 10% | 3 | 10% | 1 | 3% | 4 | 13% |
| | 2 | 4% | 5 | 9% | 2 | 4% | 4 | 8% | 5 | 9% | 15 | 28% |
| Very High/ Low | 0 | 0% | 0 | 0% | 0 | 0% | 4 | 8% | 0 | 0% | 4 | 8% |
| | 4 | 8% | 0 | 0% | 1 | 2% | 2 | 4% | 1 | 2% | 21 | 40% |

Summer Camp is in blue (N=31), and school is in orange (N=53)

When we look at conduct problems and prosocial behavior, we can see a significant difference in the percentages of students who scored in the abnormal ranges between the summer camp and the school. This could be due to a variety of reasons, including parent or teacher reported data, and the ways in which teachers choose students to participate in the Newcomers program. Perhaps teachers chose students with poor prosocial behavior on purpose, however we do not know because we were unable to interview teachers. However, given hyperactivity and inattention, emotional problems, peer problems, and total difficulties do not have significantly different baselines, we are still able to

compare these subcategories to determine if one form of implementation is more impactful than the other.

We ran 2-tailed t-tests to compare the summer camp and school-based program, and Table 11 shows the breakdown of the t-tests run on post SDQ-scores. We saw no significant difference in means between the groups post-scores except in prosocial behavior. However, because the summer camp and school-based program's prosocial behavior baseline averages were significantly different, this result is not significant.

**Table 12: Post-test t-test scores between summer camp and school program**

| | *Hyperactivity* | *Emotional Problems* | *Conduct Problems* | *Peer Problems* | *Total Difficulties* | *Prosocial Behavior* |
|---|---|---|---|---|---|---|
| *T-Test (p <.05)* | 0.3269 | 0.8296 | 0.0559 | 0.2327 | 0.6086 | 1.4443 E-10 |

What this means is that there is not enough evidence at the time to determine if the summer camp or school-based program is more effective. Further research needs to be conducted to determine if one style of implementation has more impact.

When we look at the interviews and focus groups with all therapists, we found a variety of overarching factors that could have affected the implementation of both arms. Time is an important factor to understand how and why the implementation of the Newcomer program "works." Time as a construct must be seen in many ways. First, there is the total amount of therapeutic time in the program. Both arms of the study will have a total of 14

hours of therapy per group. Second, there is the length of the intervention itself. This question about the length of the intervention is why we are looking at the second aim of this study. Time must also be considered in terms of the amount of time per session. In the camp setting, 14 hours was split evenly between 5 days. Throughout the school year, they conduct 14 hours of therapy in 45 minute sessions.

Interviews with therapists and parents showed a variety of reflections to do, moving forward. Therapists mentioned that it would be helpful to have background on kids prior to implementation, the need to have more meetings between therapists and researchers to go over expectations, the need to have more structure, to create consistent transition mechanisms, and the ideal of having less and more consistent attendance for youth.

# 9. Discussion

This study measured the impact of ATI's Newcomers program through a mixed methods study, using a quasi-experimental design. This study complements previous research that evaluated ATI's Newcomers art therapy program in Carrboro, the BATP. The differences seen in effect could be due to the sample size in the first study, the therapists conducting the groups, the number of hours, and the fact that the BATP evaluation included individual therapy sessions for participants who were identified as those with the most severe symptoms.

This study found modest impact in both interventions, with the school-based program showing more impact. However, there was no observed significant difference in impact between the summer camp and school-based program. This study supports the existing literature that shows mixed effects from art therapy interventions due to the unfocused nature of the treatment. Interviews and focus groups provided a deeper understanding that contextualized the modest impact seen, highlighting the need for more structure in the therapy, more time to increase rapport, and stronger trust between the therapist and participants to begin the therapeutic process. However, this study has quite a few limitations, and has illuminated broader tensions regarding art therapy's effectiveness as a mental health intervention. The following sections will outline the various limitations in this study, and broader questions and implications regarding art therapy as a method and the ways in which ATI performs treatment.

## 9.1 Limitations

This study, like all studies, has limitations. Limitations of this study were both logistical and research oriented. I will first explore the logistical problems.

**Communication**: This study was the first year ATI, Duke, and DPS evaluates the Durham Newcomers program. Given one of the objectives of this study was to examine how ATI works **as is**, Duke researchers did not have any input on the style, form, or method of therapy provided, and planning and implantation of the therapy of both interventions was separated from researchers control. Instead, researchers focused on the logistical aspects of the study. For the school-based program this meant getting de-identified SDQs and entering them into an encrypted excel file, and conducting interviews with therapists.

For the summer camp, this meant collecting pre- and post- SDQs and conducting focus groups and interviews. In addition, Duke researchers planned the summer camp's logistics such as providing food and transportation for Newcomer youth. The separation between planning the therapy and planning the camp led to a general lack of communication between ATI and researchers, which could have contributed to the low expectations therapists had for the summer camp. In addition, this was the first time doing a summer camp for both duke researchers and ATI, so there were many quick and hard lessons learned from the planning, implementation, and evaluation of the summer camp.

In addition, this study was designed with the intention of interviewing or conducting focus groups with teachers. However, due to inconsistent

communication between DPS and Duke researchers, we were unable to obtain contact information for teachers and ESL coordinators at the schools. This is a huge limitation in this study, as we were unable to get real feedback from teachers. What this means is all qualitative data from the school portion comes from interviews with therapists and the short comments left by teachers on the SDQs. Unfortunately, this hampers my ability to understand the school program and the impact of the Newcomers program beyond the modest impact seen in the quantitative analysis.

**Research limitations** consisted of study design, implementation protocol, rigor of data collection, and measurement validity.

In terms of the study design, we are limited in terms of what can be done with this highly vulnerable population. Specifically, it was not possible to randomize children into an intervention due to the ethical ramifications of randomizing treatment. In addition, it was not possible to have a control group that had no intervention for similar reasons.

Another limitation of this evaluation was the lack of feedback from the youth themselves. Because we worked with kids, we couldn't ask them to directly evaluate the program, which means that they could've gotten a lot more, or a lot less, out of the intervention than we know now. In line with this, while parents and teachers are around their children and observe their behaviors often, parents and teachers aren't always the best people to assess a youth's overall strengths and weaknesses. Specifically, parents and teachers see children in particular

contexts, and children change their behavior in different environments. For example, a child could have poor prosocial behavior at school due to being bullied, but have high prosocial behavior in the home. Given this concern, the SDQ has a reporting mechanism that allows for multiple points of reference per child. Future research could incorporate multiple points of references per child, I.e. parents, teachers, and other adults close to a child (coaches, mentors, imams, pastors) would each independently assess the same child, and a composite score would be generated.

Another limitation in this study was ATI's lack of a curriculum or protocol for the Newcomers program. When probed about the lack of a standard, therapists and the institute's director explained that they consider manuals and curriculum to be unethical. In their understanding, following a protocol without considering the population's needs could actually lead to unintentionally harming the kids by opening up unknown traumas. Therapists mentioned that they did not want to push their participants, as they would not have been able to provide the necessary tools to manage the trauma in such a short period of time. However, are they not licensed? Isn't the point of this treatment to work towards resolving or providing appropriate tools to manage the trauma? Not only is this a huge theoretical limitation, it also made evaluating the Newcomers program very difficult. Without a protocol, curriculum, or standard, Duke researchers were not really able to assess the fidelity of the interventions. While not having a curriculum, protocol, or standard makes it easier to "go with the flow" in the

sessions, it makes it difficult to say that each iteration of this program is the same thing. If therapists aren't implementing the same directives and don't have the same goals for the overall intervention, can you call it the same program? What this means, is that the impact seen in this study could be due to the therapist specifically, not the "Newcomers Program" broadly.

Another limitation with the school-based program was the level of rigor ATI had when collecting and de-identifying SDQs with teachers. SDQs were sent to therapists, who emailed teachers with basic instructions for completing the SDQ. These instructions were primarily, "please print and fill out this form for each student, before and after the intervention." Given there were no research staff administering the instrument in real time, teachers were not able to ask questions if they felt confused about a question. Given this section of the study was secondary data collection, Duke researchers received batches of de-identified data via ATI. When entering the SDQs, it was clear to Duke researchers that the de-identification process proved to be a bit difficult, with some participant IDs being repeated, and some participant IDs not matching in the pre- and post-SDQs. This led to a reduction in the number of **full** pre-post scores. In addition, basic demographics (gender, age, grade, country of origin) were not completely collected, provided, and linked to participant IDs to Duke researchers, limiting our ability to conduct more rigorous statistical analyses. Future research should have more rigorous data collection on demographics, including gender, age,

country of origin, which group they participated in, and individual number of hours performed.

Another limitation in this study is the instrument we used, the SDQ. Despite being widely used in research and daily practice, we ran into problems when administering the SDQ for both parents and teachers. Limitations of the SDQ when administered with parents included translation and content problems. Despite the SDQ being translated and validated into over 80 languages, we ran into issues with the Arabic translation of this instrument. Specifically, many of our parents found the style of Arabic used to be difficult to understand. This could be because Arabic is a very regional language, and the Arabic translation we used was Iraqi Arabic as this was the only one available to us. Future research should examine these questions and translations, to ensure that the concept of the question is appropriately translated and contextualized within the language.

In addition to the high language and dialect problems of the translated SDQ, all parents had problems with questions that asked comparisons such as "gets along better with adults than with children," "has at least one good friend," and questions that had to do with hyperactivity/inattention. Many found the concept of "at least" and "better" to be difficult to understand, and would need examples to begin to understand the concept of the question. In addition, questions regarding concentration, attention span, or restlessness was not understood well with our parent sample. Many parents (regardless of translation) needed examples to comprehend what the questions were asking, and despite

having researchers administering the SDQ, it was still unclear if parents fully comprehended what the questions were asking. Unfortunately, this limitation calls into question the finding we see in the summer camp, as hyperactivity and inattention was the only scale that showed significance in difference.

With teachers, many would skip questions in the SDQ that were deemed irrelevant. Most strikingly, the question regarding a youth's behavior towards younger children was not something teachers could observe so many (40%) skipped the question. Teachers skipped this question on both the pre- and post-tests. Unfortunately, skipping this question reduces the overall average per student on the prosocial scale. This reduction of the average prosocial score per student then pulls down the overall prosocial average in the school-based program, which could be why there was such statistically significant difference in prosocial scores between the summer camp and the school-based program. In line with this, this could be why we see a large percentage of the school-based program in the "very low" classification regarding prosocial behavior. This proves to be a huge problem in terms of interpreting results regarding prosocial behavior in the school-based program. In line with this, many teachers noted on the SDQ that they were not really able to assess a child's past behavior, as the SDQ is collected in the beginning of the year prior to the intervention. This limitation echoes to the larger problem in only having one adult report on a child's behavior, which was discussed earlier in the limitations section.

Lastly, ATI has been using the same SDQ as the BATP assessment from 2013-2014. Unfortunately, the master's students who conducted the BATP evaluation changed one of the SDQ's impact assessment questions, meaning the entire impact assessment portion of the SDQ was invalidated for the school-based program. The changes included a change in the actual question and a change in the scaling of the impact assessment. When researchers approached ATI, they had no idea about the changes or the effect the changes would have on the validity of the measure. What this means, is that we were not able to evaluate an impact score for the school-based program.

## 9.2 Broader Concerns

One of the biggest concerns that this study illuminated concerns the efficacy of art therapy as a mental health treatment. Specifically, while this study supports the claim that art therapy is therapeutic, is it really an appropriate mental health intervention for trauma? Could we have seen this impact through non-therapy interventions such as exercise programs or meditation? Or was the modest impact seen due to the unfocused implementation? Given the high rates of serious mental health problems and traumatic events in refugee and Newcomer populations and the lack of resources for this population, and given the mixed results in alleviating serious suffering, is it ethical for us to use these resources on interventions that have shown mixed impact, even in the most rigorous settings? Is it appropriate for us to say, "this is better than nothing?" Is it appropriate for the objective of the therapy to be: "as long as they had fun, that's

what's important?" Are we serving this underserved and vulnerable community well?

In line with this, therapists' low expectations for what can be accomplished really affected the implementation of this program. A question I had for therapists is, why didn't therapists have high expectations for what can be accomplished with this population? Low expectations might make it easier to feel like you've made impact, but unfortunately low expectations for vulnerable populations reek of paternalism. What I mean, is that therapists and the director of ATI would use the language of ethics to mediate their expectations, yet these expectations seemed to come from an understanding that these youth are traumatized and therefore fragile, rather than seeing these youth as strong and resilient in the face of trauma.

## 10. Conclusion

Despite the limitations of this study and the observed modest impact, it was clear that parents and teachers of participants appreciated the Newcomers program as a community event. Youth participating in the summer camp seemed to find joy in the program, and parents and teachers mentioned their appreciation of the Newcomers program. The enjoyment and happiness the Newcomers program should not be overlooked -- for children in unstable and/or lower economic settings, programs such as these could be one of the few times when they are exposed to various forms of the arts. This is something we shouldn't take for granted, despite the lack of impact seen in this study. However, perhaps instead of calling the Newcomers program mental health treatment, it could be relabeled as therapeutic. At this juncture, it is impossible to claim that art therapy is effective and efficacious for Newcomer populations in resettlement countries for reducing serious mental health trauma symptoms; however, this could be because of *this* Newcomers program's non-specific and idiosyncratic implementation. This study has highlighted the need for more rigorous and specific research examining ATI's work specifically, and the efficacy of expressive art therapy programs broadly.

# Appendix

## Interview Guides

*Therapists Interview Guide:*

If we were to do this next year, what did you think needs improvement?

What were your expectations or objectives of the summer camp?

Where your expectations/objectives met? How so?

Could you walk me through how or why you choose certain exercises over others?

What were the goals coming into it?

What were the challenges?

What were the main objectives and takaways for children?

From your experience, does this work well in a camp setting/school/one?

Is there differential impact on different settings?

When do you see the impact?

How much therapy do you think people need to see an impact?

How long have you been working as an art therapist? How long at ATI?

Does your work differentiate between organization?

Does ATI have a standard portfolio of work?

Do people do different forms of art therapy?

Are there different school of art therapy thought? What type are you?

What does the therapeutic process mean? What does it look like? What does it entail?

*Parents Interview Guide:*

What did you think of the summer camp?

Did you see any behavioral changes?

Did you see any lasting changes in their behavior?

What did the kids say about the summer camp?

If we did this summer camp again, what would you like to see next year?

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